Coyote Management in Prince Edward Island

Report of the Environmental Advisory Council to

The Honourable Chester Gillan

Minister of Fisheries, Aquaculture and Environment

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Introduction

What is the Environmental Advisory Council?

The Environmental Advisory Council is appointed under the *Environmental Protection Act* by the Executive Council as an advisory group to the Minister of Fisheries, Aquaculture and Environment. It is appointed with consideration to geographical origin of its members as well as their expertise and interest in environmental matters and their ability and knowledge related to natural resources management. The mandate of the Council is in appendix "A" and the list of Council members is in Appendix "B".

The Council normally meets 10 times a year and produces an annual report to be tabled in the Legislative Assembly. As well, the Council selects the winners of the annual provincial Environmental Awards.

Coyote Management - What is the issue?

The Honourable Chester Gillan referred the issue of coyote management to the Council to give him recommendations as to how the coyote population should be managed in Prince Edward Island. The issue came to prominence as a result of a resolution passed in the Provincial Legislative Assembly (April 2001) which called for coyote management techniques to be investigated and a bounty to be placed on this animal (Appendix C).

History of the Coyote in the Province

Originally an animal of the Western Great Plains, the coyote began extending its range following European settlement of that region during the late 19th century. The extirpation or reduction of timber wolves coupled with land settlement and clearing apparently facilitated its range expansion. Coyotes arrived in New Brunswick in the 1960s, Nova Scotia in the 1970s, Prince Edward Island in 1983, Newfoundland in 1987 and the Magdalen Islands in 2001 and occur in all jurisdictions in Canada, the United States and much of Central America. They are capable of lengthy treks across ice and have been observed and photographed on ice flows far from land in the Northumberland Strait and in the Gulf of St. Lawrence. The first coyote recovered in Prince Edward Island was snared near Souris in November 1983, although previous sightings of coyotes had been reported.

Following their arrival, the coyote population increased rapidly, particularly during the late 1980s and early 1990s, almost doubling annually, a pattern similar to that observed in other jurisdictions. They dispersed to all available habitat and by 1998 the population showed signs of reaching peak numbers according to harvest records collected by the Fish and Wildlife Division. Similarly, coyote populations in New Brunswick and Nova Scotia reportedly showed signs of leveling off approximately 15 years after the first specimens were recovered. Coyotes currently occupy habitat throughout the Island.

Coyote Biology

Description

The coyote is one of eight native North American wild dogs of the family *Canidae*, which includes wolves and foxes. Its scientific name, *Canis latrans*, means "barking dog", a reference to its well-known vocalizations. The word "coyote" derives from the Aztec word *coyote*, a name that Spanish explorers heard the Nahuatl Indians use. Incidentally, both pronunciations, Ky-o-tee or Ky-oat, are correct.

The eastern coyote, the variety that inhabits the Island, is larger than its western cousin. Adults weigh about 14 kg (30 pounds), though some adult males exceed 23 kg (50 pounds). The largest verified weight in PEI is a 25-kg (55-pound) male shot near Midgell in 1994, although a 28-kg (62-pound) male was recently reported from west Prince County. The eastern coyote's larger body size has been attributed to interbreeding with timber wolves, a fact confirmed by DNA testing in the early 1990s (Wayne and Lehman, 1992). The eastern coyote is about as big as a medium-sized dog, with erect pointed ears and a slender muzzle. They range in colour from cream to almost black. Most, however, are brownish grey, with black guard hairs along the middle of the back from the shoulder to the bushy tail, which is usually held low. A reddish phase is also common in Prince Edward Island.

Reproduction and Behaviour

Coyotes breed in February or March, and a litter of five to seven (possible range from one to thirteen) young is born in an underground den in April or May after a gestation period of about 60 days. The female will often dig out and occupy the den of a fox or other mammal. Both adult male and female hunt and bring food to their young. Pups begin emerging from their den by three weeks of age, are normally weaned by six weeks and within two months they follow adults to large prey or carrion. The adults and pups usually remain together until late summer or fall when pups become independent. Occasionally pups are found in groups until the breeding season begins. Coyotes are successful at surviving and even flourish in the presence of people because of their adaptable behaviour and social system. They typically display increased reproduction (compensatory reproduction) and immigration in response to human-induced mortality from hunting and trapping (Chambers, 1992).

During hot summer weather, coyotes are most active at night and during early morning hours, especially where human activity occurs. Where there is minimal human interference and during cool weather, they may be active throughout the day. Coyotes bed in sheltered areas but do not generally use dens except when raising young. They may seek shelter underground during severe weather or when closely pursued. Their physical abilities include good eyesight and hearing and a keen sense of smell. Coyotes have been measured traveling

at speeds of up to 64 kilometres per hour and can sustain slower speed for several kilometres.

Diseases and Parasites

Distemper, sarcoptic mange, parvovirus enteritis and hepatitis are among the most common diseases affecting coyotes (Green et al., 1994). Rabies also occurs in coyotes in some parts of North America. As well, coyotes are hosts to numerous parasites including mites, ticks, fleas, and lung and intestinal worms (Parker, 1995). Mortality is highest during the first year of life and few survive for more than 10-12 years.

Food Habits

Although biologically classified as carnivores (meat eaters), coyotes are omnivorous in their eating habits. They will kill and eat live prey, consume dead animals (carrion), or dine on fruit, seeds, and grass. Food items that have been found in coyote stomachs include mice, voles, shrews, squirrels, hares, rabbits, deer, skunks, raccoons, muskrats, beavers, grouse, small birds, domestic livestock (usually as carrion), poultry, insects, grass seeds, apples, blueberries, and bayberries. They are opportunistic feeders that will eat whatever is available and easiest to secure. Coyotes will feed on human refuse and livestock carrion at dumpsites and have been known to take house cats and small dogs (Green et al., 1994). Coyotes are capable of catching and killing livestock, particularly lambs, sheep and poultry (Green et al., 1994). Newborn calves born in the field are also vulnerable.

Territoriality and Home Range

Based on studies conducted in Maine, coyote pairs, which often mate for life, typically will claim and defend a territory of about 50 square kilometres (20 square miles) in which to hunt and to raise their young (Harrison, 1986). Territorial behaviour acts to limit wildlife population size and to this extent, coyote populations are self-limiting. However, the size and distribution of territories available for a given species are dependent on the carrying capacity of the habitat to support its population. High quality habitat will support a higher population density than poorer habitat.

Winter is a critical time for most predators when food availability is at a premium. Studies have shown that coyotes in agricultural habitat are more dependent on small mammals (mice, voles) and agricultural carrion and less on snowshoe hare (Parker, 1995). Agricultural carrion occurred in 38.3% of 115 stomachs examined in Prince Edward Island in a study of coyote fall and winter food habits (MacDonald, 1996). Studies of western coyotes suggest that food may overshadow coyote population density as an influence on home range size (Parker, 1995). Danner and Smith (1980) found that agricultural carcass dumps increased coyote densities in areas immediately surrounding them. They suggested that large food

supplies increased coyote tolerance of other coyotes in their home range.

Habitat quality is usually a reflection of fertility and basic productivity. In Prince Edward Island, where productivity and fertility are augmented by extensive agricultural activities, carrying capacity may be significantly higher than in the neighbouring northeastern provinces and states that are dominated by forested habitat. A study is underway at the University of Prince Edward Island to determine coyote home range and territory size and should aid in more precise estimates of the coyote population size on the Island.

Conflicts with Humans

The vast majority of coyotes feed on wild, natural sources of food. However, it is well known that a few coyotes will prey on small domestic farm animals, particularly lambs, sheep and poultry. Newborn calves born in the open field may also be vulnerable.

Sheep breeders are aware of the problems coyotes can cause to their flocks and most have taken appropriate steps to mitigate coyote predation. Techniques such as predator-proof electric fencing (e.g. Flexinet), guard dogs and guard donkeys have proven helpful in reducing losses to coyotes. Workshops have also been held to teach the proper methods of trapping problem coyotes.
To prevent loss of newborn calves, farmers are advised to have cows calve in barns rather than open fields. Once cow and calf are up and around, problems with coyotes are uncommon. Similarly, a coyote is no match for a mare with a foal. House cats and small dogs are vulnerable and pet owners are advised to keep them from roaming unattended in the wild.

Human Safety

The arrival of the coyote in Prince Edward Island has given rise to fears for human safety, particularly that of small children. Documented cases of coyotes attacking children elsewhere are extremely rare and are invariably associated with coyotes that have lost their fear of humans as a result of being fed, often in campgrounds or urban areas.

Coyotes are normally wary of humans, avoiding contact whenever possible. However, certain precautions are advisable. Food should not be left where coyotes can find it, and animals that are acting strangely should be reported to the Fish & Wildlife Division at 1-866-368-4683. This Nuisance Wildlife Hotline was initiated on July 23, 2001.

Coyote Control

There is no practical way of preventing the natural increase in coyotes. History has shown that poisoning, trapping, shooting from snowmobiles and aircraft, hunting with hounds, and bounty incentives, have consistently failed to reduce their numbers. Nova Scotia's experience with a $50 bounty during the 1980s emphasizes the futility of coyote control. In spite of the bounty, the coyote population continued to expand at the same rate in Nova Scotia as it had in New Brunswick where there had been no bounty, practically doubling every year. The total cost of bounties paid for coyotes went from $2,250 to $22,100 in four years before Nova Scotia eliminated its bounty.

Since most coyotes are not problem animals, it makes sense to direct efforts at controlling those coyotes that prey on livestock or, even better, preventing the problems from occurring in the first place. A program aimed at reducing the whole coyote population might actually increase livestock predation by stimulating females to have larger litters. This, in turn, would increase the demand for food by these animals during spring and summer, at a time when livestock are most vulnerable (Sabean, 1989).

Current Government Policy Regarding Coyotes

The policy of the Department of Fisheries, Aquaculture and Environment regarding coyotes in Prince Edward Island has been as follows:

- Coyotes are recognized as game and furbearing animals under the *Wildlife Conservation Act*. The Province sets seasons for harvesting coyotes and regulates their hunting and trapping. This year the hunting season is October 1, 2001 to February 28, 2002; and the trapping season is November 15, 2001 to January 15, 2002.

- The Department provides the public with information on coyote biology and habits as well as means of coping with coyotes.

- The Department co-operates with the Department of Agriculture and Forestry in ascertaining coyote predation on livestock and provides advice to livestock producers on methods to mitigate predation.

- The Department provides farmers with the names of trappers and hunters living in their vicinity who can be called upon to trap coyotes when such action is warranted.

- The Department deals with complaints, inquiries and requests for information from the public.

- The Department sponsors workshops that promote the hunting and trapping of coyotes, and provides information to producers on applying mitigative measures to protect livestock.

- The Department, in conjunction with the Department of Agriculture and Forestry, and the livestock industry, seeks the necessary resources to support investigations to better understand the biology of the coyote in PEI and its influence on the livestock industry.

Coyote Management Subcommittee

What We Did

The Environmental Advisory Council appointed a "Coyote Management Subcommittee" to study the issue, to meet with interest groups and the general public, to glean information from other sources including the literature, and to draft recommendations for consideration by the full Environmental Advisory Council membership. The Subcommittee was chaired by Kevin MacAdam and members were Emmerson McMillan and Dr. Pierre-Yves Daoust.

The Subcommittee met with representatives of a number of agricultural and conservation interest groups. As well, a widely-advertised public meeting was held on August 27th to get the view of citizens and to learn of their experience/interactions with coyotes.

A survey was conducted of people who were using the Confederation Trail from August 18th to 21st, 2001. The purpose was to gather information on Trail users' encounters with wildlife on trails, as well as their feelings about it. In particular, were they afraid of coyotes, dogs or other animals?

The survey was conducted by students employed in the Young Environmentalist Program. The questionnaire (Appendix D) was answered by 157 persons. Surveys were conducted at Tignish, Wellington, Emerald Junction, Hunter River, Royalty Junction, Morell, Cardigan Junction. and Harmony Junction. People were interviewed at different times in order to sample trail users at various times of day as well as during weekdays and the weekend.

A "1-800 hotline" was set up by the Fish and Wildlife Division so that the public could report wildlife which are causing problems and be advised or assisted in dealing with these nuisance situations.

Summary of Stakeholder Comments

The **Sheep Breeders** (represented by Carol MacLeod, Kate MacQuarrie and Richard Davies)

- Richard Davies lost six lambs and a ewe in the early 1980s until he got protective fencing and guard dogs. Carol MacLeod lost two lambs two years ago and one last year when the high powered electric fencing was not working properly. Kate and Dr. Ian MacQuarrie lost one lamb before they got electric fencing.
- Some producers have found that shooting coyotes is an effective management tool.
- Coyotes are eating dead stock put out by nearby hog farmers. The dead stock issue should be dealt with.
- They call trappers or hunters to take care of particular problem coyotes.
- They do not support a bounty.
- They do support the concept of financial assistance for hunters and trappers who take care of problem animals.
- It costs them money to protect their animals, but this is a cost of doing business.
- Do not subsidize farmers to put in fencing or other control methods, but have equipment such as electric fencing that could be on loan to them for a short period to demonstrate its effectiveness before a farmer decides to purchase such a unit.
- They have had more problems with dogs than coyotes.

The **Trappers Association** of PEI (represented by a letter to Minister Gillan from Carl Balsor)

- Does not support a general bounty.
- Deal with nuisance animals under a nuisance animal permit with conditions as to time and location.
- Some financial compensation for removal of problem animals would be welcome.

PEI **Wildlife Federation** (represented by David McLellan, assisted by a "Coyote Report" written by Daryl Guignion, President of the PEI Wildlife Federation)

- Maintain the current season for coyote hunting and trapping. Hunting gives coyotes a fear of humans, but hunting should be restricted to people who are properly licenced and qualified.
- Make more information available to the public about ways to deal with nuisance animals.
- Deal with nuisance animals by setting up an animal control unit, perhaps a designated group of hunters to deal with problems.
- Does not believe a widespread bounty without restrictions would be publicly acceptable.
- A bounty has not worked elsewhere.

Trail and Tree Hound Association (represented by Hal Clements)

- This group does not favour a bounty. It would mean more people in the woods and potential danger to their dogs as well as people.
- Manage coyotes with trapping and dog running, not with a bounty.
- "Bounty" is a bad word in 2001.
- Coyotes feeding on dead stock is a problem.
- The length of hunting season is O.K. now.
- It is not the size of the population they are concerned about, it is the specific problem animals.

The **Natural History Society** of PEI (represented by Jim Jenkins)

- What has changed to warrant drastic action such as a bounty? There is a history in the literature of bounties not working. The Department of Fisheries and Oceans had a bounty on seals from the 1930s to late 1970s and it did not work.
- Is a greater financial incentive than harvesting the fur required to get hunters out to take care of problem animals?
- Perhaps there could be some financial assistance to farmers to assist in fencing and other control measures.
- There should be exploration of other control methods before moving to a bounty.
- For disposal of dead hogs, perhaps there could be several composting facilities throughout the province.
- Government could not fully compensate producers for predator-killed stock because producers should have some responsibility to protect their animals.

Staff, **Department of Agriculture and Forestry** (represented by Les Halliday and Lynda MacSwain)

- They have not received many reports of coyote kills; what they heard is second hand generally and not well documented.
- Dairy and beef producers use the dead stock removal service, but hog producers generally do not because of concern about disease transmission from farm to farm and also due to rapid decomposition of carcasses.
- Most cow-calf operators are part time and not available if cows are calving in fields.
- Suggested farmers are looking for options, not necessarily a bounty.
- Fencing is not a viable option for beef producers, so there have to be other control mechanisms.
- As long as sheep producers are using electric fencing, they are keeping coyotes away from flocks.

The PEI **Federation of Agriculture** (represented by Ken McLellan)

- Farmers do not like the increase in coyote population.
- The resolution on coyotes at the Federation's annual meeting was amended to ask for coyote "management" rather than "eradication".
- Some members thought a bounty would encourage the hunting of coyotes, but a general bounty would generally not be seen as being useful.
- The Federation is open to anything that will help.
- Farmers would like to get a permit to destroy specific problem animals. The current nuisance permit system should be better advertised as well as the "1-800" nuisance wildlife reporting hotline.
- Perhaps the Province can subsidize the cost of guard animals for cow-calf operators and sheep producers.

The PEI **Cattlemen's Association** (represented by Dean Baglole)

- The Cattlemen's Association has not seen coyotes as a large part of its focus in recent years. Mr. Baglole has not had a lot of calls regarding coyotes.
- The cow-calf producers would be the ones who would have the most interest in the issue as compared to the feedlot owners.
- The Association members would likely rather have compensation for lost animals than have a bounty paid. He would not like to have bounty hunters "out there blasting away".
- Dead stock, especially hogs, left in the woods where coyotes can get it, is a problem. Funding is an ongoing challenge for the dead stock pick-up service.
- There should be a better job done on educating producers and someone should be available for advice.
- Mr. Baglole recommended to be careful with incentives. They may simply increase the cost of what is subsidized (e.g. the price of donkeys, guard dogs).

Public Meeting Summary

A widely-advertised public meeting was held on August 27th at the Howard Johnson's Dutch Inn in Cornwall. Three formal presentations were made, followed by open discussion. There were 60 - 70 attendees.

The Southeast Environmental Association (represented by David Boyce)

- Mr. Boyce provided an historical overview of bounties on wildlife..
- For example, Missouri used a bounty as far back as the 1820s, but it had little effect in curbing coyote populations. As well, he cited Pennsylvania, Kansas, New Hampshire, Texas, Alberta, New Brunswick, Nova Scotia and Rhode Island as all having had bounties at one point on various species of wildlife, but have since abandoned them.
- He recommended:
  - Focus on dealing with individual problem animals.
  - Expand the Agricultural Environmental Resources Conservation (AERC) program to cover predator fencing.
  - Target education to affected groups such as livestock farmers and pet owners.
  - Address the dead stock disposal issue.

Carol MacLeod (President of the PEI Sheep Breeders Association, but spoke as an individual)

- Mrs. MacLeod repeated the points she had previously addressed to the subcommittee and summarized her recommendations as follows:
  - Consider making available expertise as to which livestock protection method would suit a particular situation.
  - Consider the effect of current dead stock disposal practices.
  - Consider compensation for trappers who take care of problem coyotes. The amount might be variable depending on the season.
  - Continue government efforts to make people aware of problems associated with feeding wild animals.

Nelson Hurry (Retired Chief Conservation Officer)

- He considers the proposal for a bounty a backward step. Why repeat the mistakes others have made?
- Mr. Hurry suggested that money could be better spent on programs that support sound wildlife management principles.
- Before the coyote arrived in PEI, he was called to many dog-livestock problems. How many of these situations are now attributed to the coyote?

- He has concerns regarding ethics and safety if a bounty is introduced.
- If government wants to spend money to help livestock owners, it should come up with a sound management plan.

General Discussion

Sara Field, a UPEI Biology Masters student, explained her coyote thesis project. She will be applying radio collars to some coyotes. She will have access to the information collected by the nuisance wildlife telephone hotline. Some techniques she will use are scent stations, snow tracking surveys and carcass collection to get information on age, sex ratio, litter size and stomach contents.

Elmer Larson, a cattle producer from Augustine Cove, had questions as to how electric fencing works and how does one identify which coyote is creating the problem. He recommended complete eradication of coyotes through a bounty. He has not seen coyote attacks but has found bones of two or three of his calves on average per year. Mr. Larson thinks coyotes did not get here by crossing on the ice. He expressed his belief that they were brought here and introduced by people.

Carl Balsor, President of the PEI Trappers Association, indicated he does not support initiation of a bounty. However, he would like to see some compensation for trappers of identified problem coyotes, especially in the summer when the pelt is not worth much. He suggested that livestock producers improve their herd protection methods.

Ken McLellan, President of the PEI Federation of Agriculture reiterated the points he had made to the subcommittee previously. As well, he indicated that society has to pay a bit to help farmers who often have to bear a burden for all society.

Dawna Gillis indicated that a bounty is not feasible, but there are ways to target particular nuisance animals, some of which may involve compensation. Subsequent to the meeting, Ms. Gillis sent a letter to the subcommittee (August 29th) in which she recommended an education campaign relative to wildlife ecology, demonstration of predator control techniques, and focusing control efforts on individual offending coyotes.

Philip Brown, MLA, indicated he agrees 100% with Ms. Gillis' recommendation about targeting nuisance animals and including consideration of compensation. In the resolution he put forward in the Legislative Assembly, he used the word "bounty" in order to force the government to take the situation seriously. He is not supporting a wholesale bounty, but does support compensating the agricultural community if it is asked to carry an unfair burden. He supports predator control, be it for coyotes or dogs.

Trail User Survey Results

A questionnaire (Appendix D) was used to determine the attitude of users of the Confederation Trail towards wildlife and other animals.

Approximately one third of the 157 respondents use trails 50 or more times per year and travel over 100 kilometers annually on trails (Table 1). A large number use trails in the morning or evening when wildlife is generally most active and people would be most likely to see animals. The vast majority (88%) of respondents indicated that they enjoy watching wildlife and 94% have seen wildlife occasionally or frequently while on the trail. The animals most often seen are squirrels and rabbits (snowshoe hares). Only seven people (4%) reported seeing coyotes any time they used trails.

In order to find out if people had any reservation about using the trail, questions were asked about this and what the nature of the reservation might be. Fifty-eight (37%) respondents indicated they had some reservation about using the trail. Upon deeper probing as to the nature of the reservation, ten indicated that it was due to ATVs (all-terrain vehicles), seven said their reservation was due to hunters, twelve indicated dogs, and 4 each indicated concerns relating to cattle and wildlife.

A "leading" question was asked to the respondent if they felt afraid about encountering the following when using trails: coyotes, dogs and other animals? Out of 157 respondents, 34 (22%) indicated some fear of encountering coyotes; 37 (24%) indicated some fear of encountering dogs; and 10 (6%) indicated some fear of encountering other animals such as cattle.

Based on the above results, it can be interpreted that trail users generally enjoy seeing wildlife, but have seen few coyotes while using the trails. They have more reservations about trail use because of dogs, ATVs and hunters than they do coyotes. In relation to fear of encountering certain animals, a slightly larger number indicated dogs as compared to coyotes.

TABLE 1 - Trail User Survey Results (August 18-21, 2001)

		TOTAL
1. Origin of person interviewed:	Full-time Resident	94
	Seasonal Resident	10
	Non-resident	51
	No response	2
2. Trail use (# of times per year):	1 to 10	72
	Up to 20	31
	50 or more	52
3. Time of day trail used:	Morning	56
	Afternoon	29
	Evening	35
	Anytime	46
4. Distance traveled on trail per year:	1-6 kms	33
	Up to 25 kms	32
	Up to 100 kms	35
	Over 100 kms	50
5. Do you enjoy watching wildlife?	Yes	150
	No	5
	No response	1
6. Presence of wildlife when on trail:	Frequently	64
	Occasionally	85
	Never	6
7. Kind of wildlife seen on trail:	Squirrels	131
	Snakes	42
	Racoons	23
	Rabbits	75
	Foxes	48
	Coyotes	7

	Other Species	56
8. Reservations about using trail?	Yes	58
	No	98
	No response	1
9. Reason/Nature of reservation(s):	ATV	10
	Hunters	7
	Wildlife	4
	Cattle	4
	Dogs	12
10. Any fear of encountering the following when		
using the trail:	Coyotes	34
	Dogs	37
	Other animals	10

Nuisance Wildlife Hotline Response

On July 23, 2001, a "nuisance wildlife hotline" (1-866-368-4683) was set up to enable the public to report problems or concerns they have with any species of wildlife. In the 35 days until August 27th, there was a total of 118 reports received by the Fish and Wildlife Division, Department of Fisheries, Aquaculture and Environment (Table 2). Of these, six (5%) were related to coyote incidents.

Over this initial 35 days of operation of the "hotline," the coyote was surpassed as a nuisance animal by the raccoon (24 calls), skunk (11), crow (11), other birds (10), beaver (8), fox (8) and the squirrel (7).

TABLE 2 - Nuisance Wildlife Hotline - Species Summary July 23 - August 27, 2001

Species	Number of Calls
Beaver	7
Bee	1
Bobcat	1
Chipmunk	2
Cormorant	2
Coyote	**6**
Crow	11
Duck	1
Fox	8
Gull	3
Hawk	1
Mink	2
Other Bird Species	10
Other Fish Species	1
Other Small Mammal	2
Pigeon	2
Raccoon	24
Raven	1
Roughed Grouse	1
Seal	2
Skunk	12
Snake	2
Snowshoe Hare	2
Squirrel	7
Trout	1
Wasp	1
Weasel	1
Whale	1
Woodpecker	3
Total	**118**

The details on telephone calls related to coyotes are shown in Table 3. Of the six calls, one definitely was related to a predation situation. The livestock producer wanted a hunter to destroy the problem coyote(s), and a nuisance animal permit was issued for this purpose.

TABLE 3 - Telephone Calls Related to Coyote, July 23 - August 27, 2001

Date	Nature	Description	Location	Action Requested	Action Taken
07/25	Around dwelling	Neighbour's cats are disappearing	York	What can we do?	Forward to Conservation Officer
07/23	Around dwelling	Too many around	St. Marys Road		Gave advice
08/16	Suspected of killing livestock	Dead lambs	Pownal	Wants a hunter to shoot coyote(s)	Issued permit to destroy coyote(s)
08/20	Around dwelling	Afraid for small children. Coyotes coming out in open.	Kensington	What can be done?	Gave advice
07/23	Dead	Reporting dead coyote	Bedford	Remove	Removed and buried
08/16	Concerned for livestock	Pregnant cow partly eaten. Cause of death unknown.	Victoria West	Investigate	Conservation Officer investigated

Conclusions and Recommendations

Education and Extension Services

There have been efforts to educate people on methods of preventing predation on their animals. These include advice that cows should have their calves in barns or other shelters and not in open fields; and house cats and small dogs should not be allowed to roam at large. Unless animal owners adapt to managing for coyotes, they could have problems. Livestock owners should consider adopting measures to mitigate predation by coyotes before coyotes become a problem, by installing predator-proof electric fences, and/or acquiring guard animals and using other predator controls.
From the literature and from stories reported in the media, it is obvious that feeding wildlife reduces their fear of humans, potentially leading to unnaturally aggressive behaviour by coyotes. Coyotes should not be fed, even inadvertently. This rule applies to all mammalian carnivores (including raccoons, foxes, coyotes, skunks).

The Department of Fisheries, Aquaculture and Environment will continue to provide trapper training courses to increase the effectiveness of trapping coyotes. This will enable more trappers to be readily available to respond whenever contacted by livestock producers.

As with any animal, it is always easier to keep coyotes from learning bad habits than to break those habits once they are established. There are steps that can be taken to reduce potential problems:

1 **Provide education to discourage residents from providing food for mammalian carnivores or leaving edible material where they can find it.**

2 **Provide extension services on best farming practices for coyote control, e.g. make available electric fencing and charger to sheep producers on a demonstration basis.**

3 **Provide partial funding for control techniques for producers who have a predator control plan. This could be administered in a similar way to the Agricultural Environmental Resources Conservation program.**

Dead Stock Disposal

The improper disposal of dead stock can act as a food subsidy for coyotes and may favour an artificially high population of coyotes. Many people have told the subcommittee that they think the dead stock issue is a problem. Coyotes are carrion eaters and this could give them

a taste for domestic livestock, possibly leading to later predation. Problems with dead stock disposal most frequently arise from producers who do not have a facility for properly composting carcasses, and who do not use the dead stock pick-up service.

The "Guidelines For Disposal of Dead Farm Livestock" outlines acceptable methods for carcass disposal. From the Environmental Advisory Council's viewpoint, the most acceptable method is composting. It is considered unacceptable to dump carcasses in the woods or elsewhere where they can be scavenged by coyotes, dogs and other animals.

4 **Promote proper disposal of dead stock as per the guidelines from the Department of Agriculture and Forestry.**

5 **Consider upgrading the "Guidelines For Disposal of Dead Farm Livestock" to regulations, if necessary, and enforcing them.**

6 **Promote composting of dead stock, either on-farm or at centralized dead stock composting facilities, as the preferred method for disposal where the dead stock pick-up service is not used.**

Dealing with Individual Problem Coyotes

Coyotes are here to stay and there is no practical way of removing coyotes from Prince Edward Island.

A small portion of the coyote population may turn to killing livestock, namely lambs, sheep, poultry and young calves. Since not all coyotes are problem animals, it makes sense to direct efforts at controlling those coyotes that prey on livestock or, even better, preventing the problems from occurring in the first place.

Livestock producers who have a predator control plan and who implement it have the greatest success in reducing damage caused predators. Anyone who has a problem with an individual animal can get a "nuisance permit" from the Fish and Wildlife Division to enable him/her to legally destroy it. Many times, trappers and hunters have been asked by farmers to assist them by dealing with these particular animals.

Research in all known jurisdictions in North America indicates that bounties have been an expensive failure as a coyote management technique.

7 **Set up an animal control system to identify and deal with problem animals. This would include continuing the "hotline" to report problem animals of all species.**

8 **Continue to issue nuisance animal permits to deal with problem animals.**

9 **Provide some financial support to trappers and hunters who take out problem coyotes when requested by livestock producers, outside of the hunting and trapping season, as documented through the Department of Fisheries, Aquaculture and Environment.**

10 **Maintain the current trapping and hunting season for coyotes.**

11 **Fund part of firearms qualifications courses for livestock owners so that they are able to possess and use firearms if they have not already acquired the necessary courses.**

12 **Do not impose a bounty.**

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Appendix A
Environmental Advisory Council Terms of Reference

Section 4(2) of the *Environmental Protection Act* sets out the council's responsibilities:
The Council shall:

- ***serve as an advisory board to the Minister of the Department of Fisheries, Aquaculture and Environment;***
- ***perform such functions as may be prescribed by regulations.***

The mandate for the Environmental Advisory Council as prescribed by the Act is somewhat vague in order to be all encompassing. The Council was advised by the Minister that nothing of an environmental nature should be out of bounds for the council to investigate.

To define the Council's mandate, the following terms of reference was approved by the Minister:

- To advise the Minister of the Department of Fisheries, Aquaculture and Environment on matters referred to the Council by the Minister or the public.
- To correspond, to conduct research, and to receive submissions while keeping the Minister informed of such activity.
- To prepare and present briefs at the request of the Minister on issues having environmental impact in Prince Edward Island.
- To recognize individuals and groups who work to improve the environment and environmental knowledge.
- To report annually to the Minister on submissions received, research conducted, investigations undertaken and recommendations made under the Environmental Protection Act.
- To advise the Minister on environmental matters related to activities in relation to the Provincial Conservation Strategy.
- To make recommendations to the Minister on conservation or environmental improvement awards.
- To make recommendations to the Minister respecting opportunities for environmental improvement or protection programs or projects.
- To recommend to the Minister public education projects or programs.
- To make recommendations to the Minister respecting support for community, private and non-government programs and projects.

- To advise the Minister on legislative proposals as they relate to environmental protection and enhancement.

- To advise the Minister on such matters as he may direct.

- To perform such functions as may be provided by regulations under Subsection 4(2)(b) of the Act.

Appendix B

Membership List, Environmental Advisory Council

Kevin MacAdam, Morell (Chair)

Dr. Donna Giberson, Charlottetown (Vice-chair)

Barry Cudmore, Brackley

Dr. Pierre-Yves Daoust, Wheatley River

Dr. Leon Loucks, Charlottetown

Emmerson McMillan, Ascension

Lorne MacNeill, West Cape

Rudy Croken, Kensington

Terry Perry, St. Patrick's

Sherra Profit, Summerside

Johnny Flynn, Souris

Stan Campbell, New Haven

Ron Perry, Summerside

Sarah Stewart, Charlottetown

APPENDIX C

Legislative Assembly Resolution on Controlling the Coyote Population

WHEREAS many farm organizations in general, and farm families in particular, have expressed serious concerns about the ever increasing numbers of coyotes in rural Prince Edward Island;

AND WHEREAS in recent years, coyotes, a non-native predator species, have become prolific on Prince Edward Island;

AND WHEREAS coyotes have attached and killed a number of sheep, lambs, young calves, and household and barnyard pets;

AND WHEREAS livestock owners have been holding back on expansion for their cow-calf and sheep production farms due to growing concerns about the number of coyotes;

AND WHEREAS there currently exists no policy or regulation which monitors control of these pests;

AND WHEREAS because this province is surrounded by water, it is possible to control the coyote population;

THEREFORE BE IT RESOLVED that this Legislature support the farming community in its effort to control the coyote population on Prince Edward Island to protect livestock and humans;

AND BE IT FURTHER RESOLVED that this Legislative Assembly support a seasonal bounty on coyotes during the annual trapping season to control the number of coyotes.

AND BE IT FURTHER RESOLVED that this Assembly support any other measures that might be effective to control coyotes, including, but not limited to, longer seasons and 1-800 numbers. As well, this Assembly calls on all groups, including Fish and Wildlife and environmental organizations to work together to find a solution to this problem.

Appendix D
Trail User Questionnaire

1. Are you a full time resident of PEI? ____, a seasonal resident? _____, or a visitor? _____.

2. How often do you use trails in PEI during the year?
   1 to 10 times _____,
   up to 20 times _____,
   up to 50 or more times _____.

3. What time of day do you use trails?
   Morning _____,
   Afternoon _____,
   Evening _____,
   Anytime _____.

4. How many kilometers do you travel on PEI trails per year?
   1 to 6 km (4 miles) _____,
   up to 25 km (17 miles), _____,
   up to 100 km (67 miles), ____,
   more than 100 km _____.

5. Do you enjoy watching wildlife? Yes ____, No____.

6. Do you notice the presence of wildlife when you use the trail?
   Frequently _____ (go to question 7)
   Occasionally _____ (go to question 7)
   Never _____ (go to question 8)

7. What kind of wildlife have you seen when on the trail? (Check all that apply)
   Squirrels _____
   Snakes _____
   Racoons _____
   Snowshoe hares (rabbits)_____
   Foxes_____
   Coyotes_____ (If "yes", how often seen?_____, How often heard?_____,
   What was their behaviour?_____
   Any other species seen?_____

8. Do you have any reservations about using the trail?
   Yes____ (Go to question 9)
   No ____ (Go to Question 10)

9. What is the nature of your reservation?
   ATV's__ Hunters__ Wildlife___ Cattle__ Dogs__

10. Do you feel afraid about encountering the following when using trails?
    Coyotes..... Yes ____, No ____
    Dogs.....Yes ____, No ____
    Other animals....Yes ____, No ____